

Table A1: Estimates of TES Score Growth During the Evaluation School Year

	(1)	(2)
Week of School Year	0.010** (0.001)	0.009** (0.001)
First Year Teacher * Week of School Year	0.001 (0.002)	0.003+ (0.002)
1 Year Experience * Week of School Year	0.003 (0.003)	0.007** (0.002)
2 Years Experience * Week of School Year	-0.005 (0.003)	0.002 (0.003)
3 Years Experience * Week of School Year	-0.002 (0.002)	-0.000 (0.002)
4 Years Experience * Week of School Year	-0.002 (0.003)	0.001 (0.003)
5-9 Years Experience * Week of School Year	-0.001 (0.002)	0.001 (0.002)
Compared to 10+ Years Experience		
First Year Teacher	-0.418** (0.051)	
1 Year Experience	-0.351** (0.087)	
2 Years Experience	-0.171+ (0.092)	
3 Years Experience	-0.058 (0.048)	
4 Years Experience	-0.096 (0.076)	
5-9 Years Experience	-0.062 (0.045)	
Constant	3.055** (0.028)	2.953** (0.011)
Teacher-Year Fixed Effects		Y
Teacher-Year Sample	1892	1892
Classroom Observations Sample	6,469	6,469
Adjusted R-squared	0.095	0.718

Note: Each column represents a separate classroom-observation-level specification. Clustered (teacher-year) standard errors in parentheses. \*\*p<0.01, \*p<0.05, +p<0.1.

Table A2: Estimates of the Relationship Between Student Test Scores & Teacher TES Standard-level Scores

	(A) Math		(B) Reading	
	(1)	(2)	(1)	(2)
Standard 2.1	-0.009 (0.049)	-0.032 (0.055)	0.028 (0.056)	-0.023 (0.042)
Standard 2.2	0.178** (0.053)	0.101* (0.049)	-0.070 (0.045)	0.001 (0.042)
Standard 2.3	0.044 (0.044)	0.053 (0.040)	0.111** (0.043)	0.070* (0.032)
Standard 3.1	-0.120 (0.075)	-0.071 (0.053)	-0.007 (0.057)	0.055 (0.046)
Standard 3.2	0.005 (0.064)	0.055 (0.048)	-0.068 (0.057)	-0.055 (0.041)
Standard 3.3	0.098 (0.078)	0.006 (0.055)	0.105 (0.081)	-0.041 (0.053)
Standard 3.4	-0.020 (0.067)	0.018 (0.040)	0.069 (0.054)	0.078+ (0.041)
Standard 3.5	0.064 (0.064)	-0.012 (0.048)	0.030 (0.053)	0.036 (0.043)
School Fixed Effects		Y		Y
Teacher Sample	207	207	365	365
Student Sample	16,196	16,196	20,125	20,125
Adjusted R-squared	0.531	0.556	0.530	0.550

Note: Each column represents a separate student-level specification including student controls, and teacher experience controls. Clustered (teacher) standard errors in parentheses.

\*\*p<0.01, \*p<0.05, +p<0.1.

Table A3: Estimates of the Relationship Between Student Test Scores & Teacher TES Score  
Principal Components - Full Results

	(A) Math					
	(1)	(2)	(3)	(4)	(5)	(6)
1. Overall Classroom Practices	0.543** (0.108)	0.221** (0.041)	0.202** (0.037)	0.105** (0.032)	0.275** (0.037)	0.362** (0.117)
2. Classroom Environment Relative to Instructional Practices	0.231+ (0.122)	0.128* (0.051)	0.121* (0.051)	0.082* (0.040)	-0.021 (0.088)	0.023 (0.329)
3. Questions & Discussion Approach Relative to Standards & Content Focus	0.065 (0.140)	0.001 (0.060)	-0.009 (0.061)	0.001 (0.039)	-0.031 (0.097)	0.051 (0.219)
Prior Student Achievement						
Prior Year Test Score		0.580** (0.025)	0.576** (0.023)	0.564** (0.020)	0.566** (0.060)	0.540** (0.059)
Prior Year Test Score * Grade 4		-0.026 (0.034)	-0.025 (0.034)	-0.047+ (0.025)	0.038 (0.061)	0.055 (0.063)
Prior Year Test Score * Grade 5		0.040 (0.029)	0.045 (0.028)	0.035 (0.024)	0.025 (0.048)	0.031 (0.052)
Prior Year Test Score * Grade 6		0.009 (0.031)	0.011 (0.030)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Prior Year Test Score * Grade 7		-0.077** (0.028)	-0.081* (0.031)	-0.129** (0.040)	-0.227* (0.099)	-0.229* (0.102)
Prior Year Test Score * Grade 8		0.000 (0.000)	0.000 (0.000)	-0.037 (0.030)	-0.008 (0.074)	0.012 (0.073)
Missing Test Score Imputed		-0.040 (0.053)	-0.043 (0.049)	-0.033 (0.043)	-0.096 (0.077)	-0.089 (0.072)
Male Student		0.026* (0.011)	0.026* (0.011)	0.032** (0.011)	0.040 (0.029)	0.038 (0.029)
Student Race/Ethnicity (White Omitted)						
African-American		-0.259** (0.037)	-0.259** (0.034)	-0.231** (0.032)	-0.258** (0.075)	-0.263** (0.085)
Hispanic		-0.121* (0.054)	-0.114* (0.054)	-0.088+ (0.051)	-0.126 (0.093)	-0.144 (0.098)
All Others		-0.102** (0.036)	-0.102** (0.035)	-0.113** (0.036)	-0.169* (0.063)	-0.173* (0.067)
Special Education		-0.249** (0.020)	-0.254** (0.021)	-0.256** (0.019)	-0.293** (0.044)	-0.270** (0.043)
English Language Learner		-0.010 (0.053)	-0.011 (0.052)	-0.032 (0.046)	0.126 (0.089)	0.093 (0.089)
Gifted & Talented		0.398** (0.027)	0.397** (0.028)	0.333** (0.027)	0.301** (0.056)	0.281** (0.055)
Retained in Grade		-0.181** (0.014)	-0.177** (0.013)	-0.151** (0.012)	-0.178** (0.025)	-0.162** (0.024)

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Table A3 (cont.): Estimates of the Relationship Between Student Test Scores & Teacher TES Score Principal Components - Full Results

	(A) Math (cont.)					
	(1)	(2)	(3)	(4)	(5)	(6)
Current Teacher Experience Level (time t)						
(0 Years Omitted)						
1 Year			0.438** (0.075)	-0.053 (0.088)	0.428** (0.117)	0.000 (0.000)
2 Years			0.578** (0.099)	0.000 (0.000)	-0.213 (0.148)	-1.054** (0.089)
3 Years			0.191 (0.137)	-0.102 (0.087)	-0.909** (0.193)	0.555* (0.264)
4 Years			0.372** (0.133)	-0.035 (0.068)	-0.390+ (0.221)	-0.813** (0.085)
5-9 Years			0.277+ (0.148)	-0.072 (0.071)	-0.626** (0.201)	-0.805** (0.066)
10+ Years			0.249 (0.153)	-0.119 (0.081)	-0.566** (0.205)	0.000 (0.000)
Teacher Experience Level During TES Participation (time T) (0 Years Omitted)						
1 Year			0.413** (0.124)	0.408* (0.171)	1.445** (0.235)	3.297** (0.330)
2 Years			0.067 (0.112)	0.038 (0.103)	1.263** (0.189)	0.000 (0.000)
3 Years			0.159 (0.112)	0.044 (0.109)	0.906** (0.173)	1.111** (0.157)
4 Years			0.118 (0.147)	-0.084 (0.109)	1.009** (0.165)	0.000 (0.000)
5-9 Years			0.189 (0.131)	0.034 (0.104)	1.132** (0.186)	1.522** (0.259)
10+ Years			0.219 (0.134)	0.094 (0.112)	1.068** (0.179)	1.036** (0.231)
Constant	-1.752** (0.391)	-0.566** (0.163)	-0.856** (0.146)	-0.012 (0.171)	-1.213** (0.170)	-2.338** (0.385)
Grade-by-Year Fixed Effects	Y	Y	Y	Y	Y	Y
School Fixed Effects				Y		
Teacher Fixed Effects						Y
Teacher Sample	207	207	207	207	49	49
Student Sample	16,196	16,196	16,196	16,196	4,109	4,109
Adjusted R-squared	0.049	0.527	0.529	0.556	0.545	0.561

Note: Each column represents a separate student-level specification. Clustered (teacher) standard errors in parentheses. \*\*p<0.01, \*p<0.05, +p<0.1.

Table A4: Estimates of the Relationship Between Student Test Scores & Teacher TES Score  
Principal Components - Full Results

	(B) Reading					
	(1)	(2)	(3)	(4)	(5)	(6)
1. Overall Classroom Practices	0.487** (0.094)	0.209** (0.036)	0.214** (0.037)	0.141** (0.029)	0.106+ (0.055)	0.294* (0.134)
2. Classroom Environment Relative to Instructional Practices	0.160 (0.145)	0.059 (0.049)	0.059 (0.049)	0.036 (0.039)	0.201+ (0.106)	0.212 (0.157)
3. Questions & Discussion Approach Relative to Standards & Content Focus	0.184 (0.135)	0.109* (0.046)	0.100* (0.046)	0.061 (0.038)	0.011 (0.072)	-0.297 (0.236)
Prior Student Achievement						
Prior Year Test Score		0.588** (0.018)	0.584** (0.018)	0.543** (0.017)	0.546** (0.039)	0.584** (0.036)
Prior Year Test Score * Grade 3		0.007 (0.024)	0.010 (0.024)	0.012 (0.023)	0.007 (0.052)	-0.057 (0.052)
Prior Year Test Score * Grade 4		-0.051* (0.026)	-0.049+ (0.026)	-0.043+ (0.024)	-0.016 (0.047)	-0.080+ (0.044)
Prior Year Test Score * Grade 5		0.008 (0.026)	0.012 (0.025)	0.020 (0.023)	0.084 (0.055)	0.000 (0.000)
Prior Year Test Score * Grade 6		0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.083+ (0.050)	-0.012 (0.038)
Prior Year Test Score * Grade 7		-0.050* (0.024)	-0.046+ (0.024)	-0.078* (0.039)	-0.036 (0.069)	-0.175+ (0.101)
Prior Year Test Score * Grade 8		0.044 (0.030)	0.048 (0.031)	-0.027 (0.028)	0.000 (0.000)	-0.110 (0.073)
Missing Test Score Imputed		-0.036 (0.040)	-0.035 (0.040)	-0.027 (0.034)	0.115 (0.088)	0.100 (0.071)
Male Student		-0.073** (0.010)	-0.072** (0.011)	-0.071** (0.010)	-0.067** (0.024)	-0.067** (0.022)
Student Race/Ethnicity (White Omitted)						
African-American		-0.242** (0.024)	-0.240** (0.023)	-0.211** (0.017)	-0.261** (0.042)	-0.222** (0.033)
Hispanic		-0.188** (0.066)	-0.188** (0.065)	-0.172** (0.062)	-0.270* (0.124)	-0.297* (0.132)
All Others		-0.087** (0.029)	-0.087** (0.028)	-0.100** (0.025)	-0.154** (0.053)	-0.158** (0.044)
Special Education		-0.254** (0.018)	-0.254** (0.018)	-0.274** (0.017)	-0.260** (0.033)	-0.276** (0.035)
English Language Learner		-0.038 (0.053)	-0.036 (0.053)	-0.061 (0.054)	0.112 (0.084)	0.062 (0.089)
Gifted & Talented		0.387** (0.021)	0.387** (0.021)	0.320** (0.022)	0.375** (0.035)	0.304** (0.036)
Retained in Grade		-0.157** (0.014)	-0.158** (0.014)	-0.137** (0.012)	-0.162** (0.026)	-0.125** (0.022)

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Table A4 (cont.): Estimates of the Relationship Between Student Test Scores & Teacher TES Score Principal Components - Full Results

	(B) Reading (cont.)					
	(1)	(2)	(3)	(4)	(5)	(6)
Current Teacher Experience Level (time t)						
(0 Years Omitted)						
1 Year			0.270** (0.084)	0.108 (0.102)	0.548** (0.089)	1.032** (0.377)
2 Years			0.449** (0.085)	0.319** (0.094)	0.647** (0.170)	1.559** (0.514)
3 Years			0.476** (0.113)	0.323* (0.129)	1.112** (0.115)	1.686** (0.422)
4 Years			0.466** (0.102)	0.282* (0.115)	0.743** (0.156)	1.505** (0.431)
5-9 Years			0.397** (0.101)	0.236* (0.113)	0.737** (0.151)	1.554** (0.446)
10+ Years			0.363** (0.110)	0.242* (0.118)	0.778** (0.167)	1.479** (0.441)
Teacher Experience Level During TES Participation (time T) (0 Years Omitted)						
1 Year			0.015 (0.103)	-0.065 (0.075)	0.206 (0.188)	-0.572 (0.510)
2 Years			-0.150 (0.100)	-0.185* (0.086)	-0.602** (0.109)	-1.180** (0.393)
3 Years			-0.121 (0.082)	-0.211** (0.075)	-0.264+ (0.150)	-1.149** (0.354)
4 Years			-0.132 (0.095)	-0.228** (0.085)	-0.363* (0.152)	-0.820* (0.343)
5-9 Years			-0.111 (0.091)	-0.199* (0.081)	-0.323* (0.150)	-0.806* (0.355)
10+ Years			-0.087 (0.100)	-0.208* (0.089)	-0.362* (0.178)	-0.834+ (0.421)
Constant	-1.521** (0.312)	-0.455** (0.127)	-0.759** (0.131)	-0.170 (0.117)	-0.524** (0.191)	-1.630** (0.397)
Grade-by-Year Fixed Effects	Y	Y	Y	Y	Y	Y
School Fixed Effects				Y		
Teacher Fixed Effects						Y
Teacher Sample	365	365	365	365	81	81
Student Sample	20,125	20,125	20,125	20,125	5,251	5,251
Adjusted R-squared	0.039	0.528	0.529	0.550	0.550	0.582

Note: Each column represents a separate student-level specification. Clustered (teacher) standard errors in parentheses. \*\*p<0.01, \*p<0.05, +p<0.1.

Table A5: Estimates of the Relationship Between Student Test Scores & Teacher TES Score  
Principal Components

(A) Math				
	(1)	(2)	(3)	(4)
1. Overall Classroom Practices	0.105** (0.032)	0.138** (0.030)	0.121** (0.031)	0.117** (0.032)
2. Classroom Environment Relative to Instructional Practices	0.082* (0.040)	0.038 (0.040)	0.028 (0.040)	0.014 (0.043)
3. Questions & Discussion Approach Relative to Standards & Content Focus	0.001 (0.039)	-0.018 (0.037)	-0.025 (0.038)	-0.026 (0.039)
Sample Window of School Year, $t$ , Relative to TES Year, $T$				
$ T-t =1$ or $ T-t =2$ (as in main estimates Table 4)	Y	Y	Y	Y
$ T-t =3$		Y	Y	Y
$ T-t =4$			Y	Y
All $t$ except $T=t$				Y
Teacher Sample	207	207	207	207
Student Sample	16,196	19,139	20,297	20,435
Adjusted R-squared	0.556	0.551	0.550	0.548
(B) Reading				
	(1)	(2)	(3)	(4)
1. Overall Classroom Practices	0.141** (0.029)	0.140** (0.028)	0.143** (0.027)	0.133** (0.027)
2. Classroom Environment Relative to Instructional Practices	0.036 (0.039)	0.016 (0.040)	0.009 (0.038)	0.005 (0.038)
3. Questions & Discussion Approach Relative to Standards & Content Focus	0.061 (0.038)	0.066+ (0.037)	0.070+ (0.036)	0.073* (0.036)
Sample Window of School Year, $t$ , Relative to TES Year, $T$				
$ T-t =1$ or $ T-t =2$ (as in main estimates Table 4)	Y	Y	Y	Y
$ T-t =3$		Y	Y	Y
$ T-t =4$			Y	Y
All $t$ except $T=t$				Y
Teacher Sample	365	365	365	365
Student Sample	20,125	24,101	25,500	25,742
Adjusted R-squared	0.550	0.550	0.550	0.549

Note: Each column represents a separate student-level specification including student controls, teacher experience controls, and school fixed effects. Clustered (teacher) standard errors in parentheses. \*\* $p < 0.01$ , \* $p < 0.05$ , + $p < 0.1$ .